

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 November 2004 (11.11.2004)

PCT

(10) International Publication Number
WO 2004/097341 A1

(51) International Patent Classification⁷: G01C 21/34,
G08G 1/0968 // G06F 165:00

(21) International Application Number:
PCT/AU2004/000575

(22) International Filing Date: 30 April 2004 (30.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003902042 30 April 2003 (30.04.2003) AU

(71) Applicant (for all designated States except US):
NEXTSPACE TECHNOLOGIES PTY LTD [AU/AU]; Suite 7 Ashgrove Serviced Offices, 240 Waterworks Road, Ashgrove, Queensland 4060 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GRAY, Don, Chanachok [AU/AU]; 2/12 Greenbank Street, Chermisse,

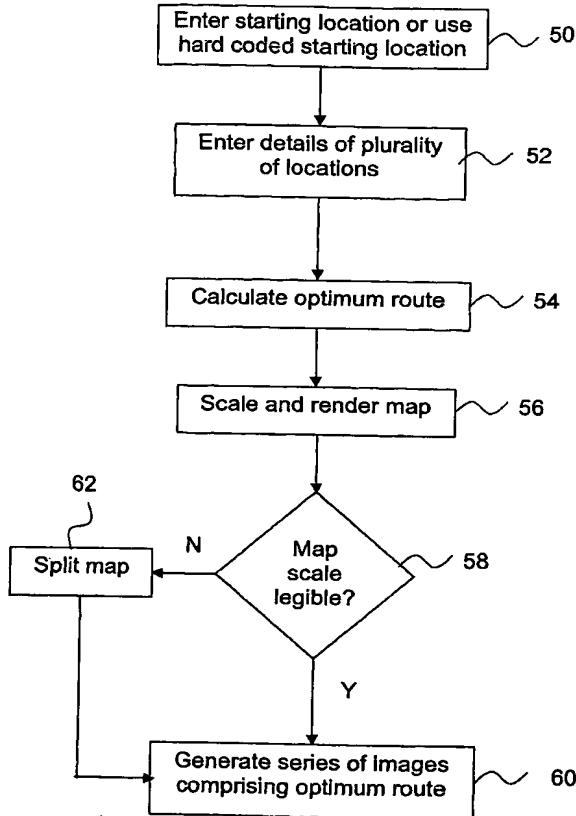
Queensland 4032 (AU). BAHIR, Ahmad [AU/AU]; 90 Bluegrass Crescent, Eight Mile Plains, Queensland 4113 (AU). LA, Nhut, Luke [AU/AU]; 5 Forgan Smith Street, Collingwood Park, Queensland 4301 (AU). WONG, Ben [AU/AU]; Suite 7 Ashgrove Serviced Offices, 240 Waterworks Road, Ashgrove, Queensland 4060 (AU).

(74) Agent: FISHER ADAMS KELLY; Level 13 AMP Place, 10 Eagle Street, Brisbane, Queensland 4001 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: ROUTE OPTIMIZATION APPARATUS & METHOD



(57) Abstract: An apparatus for generating an optimised route between a plurality of locations comprises processing means in communication with the following: input means to enable a user to identify the plurality of locations, storage means for storing geographic data, a data handling engine for converting the locations into data representative of the plurality of locations by reference to the storage means, a route calculating engine for calculating an optimised route between the plurality of locations on the basis of said representative data, an image rendering engine for generating a series of images, each image of the series comprising a part of the optimised route between two of the identified locations and output means for outputting the series of images.



(84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*